Landscape Ecology Course for Graduate School's Students

ARL 621 LANDSCAPE ECOLOGY – 3(3-0): This subject concerns with ecological principles and concepts in the landscape, which is emphasized on landscape structure, landscape function, landscape dynamic and its heterogeneity. It is also concern with landscape conservation-management, and the methodology in landscape ecology as well (Hadi Susilo Arifin, Wahyu Q. Mugnisyah, and Syartinilia Wijaya)

Participants: 8 Master Students (3 students of ARL & 5 students of KVT)

Class Room: Landscape Management Division Room - Wing 13/Level VI - Dramaga Campus

Day/Time: Tuesday/14.00 - 16.30

Lecturer: Hadi Susilo Arifin (HSA); Wahju Qamara Mugnisjah (WQM), Syartinilia Wijaya (SWI)

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<td>Hadi Susilo Arifin</td>
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Introduction: Syllabi & Time Schedule; HSA
Landscape and Principles
18 Feb
Ecological Concepts in Brief (physical environment, aquatic environment, population, evolutionary, ecological comm, energy and matter in ecosystems
III

25 Feb
LANDSCAPE STRUCTURE – PATCHES: patch origin and change, patch size/shape/number and configuration
IV

4 Mar
LANDSCAPE STRUCTURE – CORRIDORS:
corridors and their origin,
structure/line/strip/stream corridors
11 Mar
MATRIX AND NETWORK: Distinguishing a matrix, porosity and boundary shape, network, matrix heterogeneity
VI

18 Mar
OVERALL STRUCTURE: Micro/macro heterogeneity, configuration of patches, corridors and matrix, contrast in landscape, grain size of the landscape
VII

25 Mar
LANDSCAPE DYNAMIC: Natural process in landscape development (Geomorphology, establishment of life forms, soil development, natural disturbance)
VIII

1 Apr
Mid-Test
IX

8 Apr
LANDSCAPE DYNAMIC: The Human Role in Landscape Development (Modification of Natural Rhythms, Method or Tools Used in Landscape Modification, A landscape Modification Gradients)
15 Apr
LANDSCAPE DYNAMIC: Flows between adjacent landscape elements (Mechanism underlying linkage, airflow and locomotion, soil flow, interaction between land and stream, hedgerow interaction with adjacent landscape element
LANDSCAPE DYNAMIC: Animal and Plant Movement Across a Landscape (Pattern and movement, Movement of animals, movement of plants, some species movement in Agriculture and pest control
XII

29 Apr
LANDSCAPE DYNAMIC : Landscape Functioning
(Corridors and Flows, Flows and the Matrix, Networks)
WQM
LANDSCAPE DYNAMIC: Landscape Change
(Stability, Meta-stability, Pattern of Overall landscape change, landscape dynamic, linkage among landscapes)
WQM
XIV

13 May
HETEROGENEITY AND MANAGEMENT:
Heterogeneity and Typology (Landscape heterogeneity, animal response to heterogeneity, guidelines for landscape typology, The inherent hierarchy in nature, Ascending typology)
XV

20 May
HETEROGEINITY AND MANAGEMENT:
Landscape Management (Production in
landscape, Major landscape type, landscape
quality, modelling and landscape management
XVI

3 Jun
Final Test
BONUS - VIDEO:

1. Ecocity - http://www.youtube.com/watch?v=qHNlY_O6I

VIDEO Hadi Susilo Arifin in Healthy Living Program – Metro TV – Episode 7 ECOCITY
DEVELOPMENT

2. Biodiversity - http://www.youtube.com/watch?v=-NhH9amZJ8Y

VIDEO Hadi Susilo Arifin in Healthy Living Program – Metro TV – Episode 8 URBAN

BIODIVERSITY CONSERVATION
3. Greenery Open Spaces - http://www.youtube.com/watch?v=KBmUcVZx75g

VIDEO Hadi Susilo Arifin in Healthy Living Program – Metro TV – Episode 9

GREENERY OPEN SPACE

4. Landscape Ecology - http://www.youtube.com/watch?v=82iGnDMs7ZU
VIDEO Hadi Susilo Arifin in Healthy Living Program – Metro TV – Episode 12